

## **AMENDMENTS TO THE SPECIFICATION:**

Please amend the paragraph beginning on page 12, line 23, and ending on page 13, line 12, as follows:

The control module 504 controls the operation of each of the modules 501, 502, and 503 in the video encoder ~~[[404]]~~ 304. The encode module 502 is called for each of the input frames. The encode module 502 is allowed to perform the compression coding processing with respect to the input frame. In this control module 504, there is provided a function of controlling the processing state of the compression coding processing by the encode module 502. The processing content of the compression coding processing which the encode module 502 performs is optimized on the basis of the processing state of the compression coding processing of the encode module 502. The control of the processing content of the compression coding processing is performed by changing the parameter of the coding option which is handed to the encode module 502 when the encode module 502 is called.

Please amend the paragraph beginning on page 14, line 16, as follows:

Next, referring to the flowchart of FIG. 6, the whole flow of the video compression control will be explained which is performed by the encode module ~~[[304]]~~ 502.

Please amend the paragraph beginning on page 15, line 7, as follows:

Next, the control module 504 compares the compression processing time  $T$  with the target one frame time which is an inverse of the target frame rate 602 to determine the processing state of the compression coding processing (step S224). If the value of the compression processing time  $T$  is larger than the frame time interval designated with the target frame rate 602, namely, if the compression coding processing is delayed, the control module 504 updates the state variable "X" 603 by incrementing the value thereof (step S225). On the other hand, if the value of the compression coding processing  $T$  is smaller than the frame time interval designated in the target frame rate 602, namely, if there is room for the CPU 11, the control module 504 updates the state variable "X" 603 by decrementing the value thereof (step ~~[[S225]]~~ S226).

Please amend the paragraph beginning on page 17, line 22, and ending on page 18, line 7, as follows:

As shown in FIG. 9A, in the block tree search all the blocks in the search range are divided into several groups, the representative blocks (denoted with a double circle) of each group in the reference frame are compared with the representative block of the reference group in the input frame and the most similar representative block is determined. Next, comparison of all the blocks with other blocks (denoted with a single circle) in the determined group is performed so that the block most similar to ~~[[thee]]~~ the reference block is determined. As a consequence, the number of blocks to be

compared with the reference block can be eliminated, and an attempt can be made to alleviate the processing.

Please amend the paragraph beginning on page 19, line 15, and ending on page 20, line 3, as follows:

The control module 504 obtains the processing start time (the current time) from the operating system 103 before the control module 504 allows the encode module 502 to perform the compression coding processing of ~~[[the]]~~ an input frame ~~[[502]]~~ (step S231). Next, the control module 504 calls the encode module 502 to perform the compression coding processing with respect to the current input frame (step S232). When the compression coding processing for one frame by the encode module 502 is completed, the control is brought back from the encode module 502 to the control module 504. The control module 504 obtains the processing end time from the operating system 103 and calculates the compression processing time T by taking a difference between the processing start time and the processing start time (step S233).

Please amend the paragraph beginning on page 20, line 4, as follows:

Next, the control module 504 compares the compression processing time T and the target one frame time which is the inverse of the target frame rate 602 to determine the processing state of the compression coding processing (step S234). If the value of the compression processing time T is larger than the frame time interval, namely, if the

compression coding processing is delayed, the control module 504 sets the value of the state variable "X" 603 to "1" (step S235). On the other hand, if the value of the compression processing time T is either equal to or smaller than the frame time interval designated with the target frame rate 602, the control module 504 sets the value of the state variable "X" 603 to "0" (step [[S225]] S236).

Please amend the paragraph beginning on page 27, line 15, and ending on page 28, line 2, as follows:

That is, before the control module 705 allows the pre-filter module 702 to perform the filtering processing of the input frame, the control module 705 obtains, the processing start time (the current time) from the operating system 103 (step S302). Next, the control module 705 calls the pre-filter module 702 to perform the filtering processing with respect to the current input frame (step S303). When the filtering processing is completed, the control is brought back from the pre-filter module 702 to the control module [[703]] 705. The control module 705 obtains the processing end time at this time from the operating system 103 to calculate the filter processing time t1 by taking a difference between the processing start time and the processing end time (step S304).

Please amend the paragraph beginning on page 28, line 18, and ending on page 29, line 3, as follows:

In the subsequent encoding processing (step S308) by the encode module 703, the processing explained in FIGS. 6 and 7 or the processing explained in FIGS. 10 and 11 is performed. For example, the control of the calculation processing quantity associated with the compression coding processing (the renewal of the state variable "X" and the variable control of the block search range based on the state variable "X") is performed on the basis of the scale relation between the actual compression coding processing time  $t_2$  and the remaining time resulting from the subtraction of the normal filtering processing time from the frame time interval of the target frame rate [[80]] 802.